

IN THE UNITED STATES PATENT OFFICE

**APPLICANT:** Norton Spiel  
**SERIAL NO.** 10/215,656  
**FILED:** August 10, 2002  
**FOR:** COMBINATION PLASTIC SPIRAL FORMING  
MACHINE AND SEMI-AUTOMATIC PLASTIC  
SPIRAL BINDING MACHINE  
**EXAMINER:** M. Henderson  
**GROUP ART UNIT:** 3722

COPY

RULE 56 INFORMATION DISCLOSURE STATEMENT

In order to fulfill the requirements of candor and good faith set forth in 37 CFR 1.56, Applicant submits for consideration by the Examiner this Rule 56 Information Disclosure Statement with the enclosed references cited on the PTO 1449 form. A copy of the foregoing references are enclosed.

These references are the same references cited in the earlier patent application filed under serial number 09/677,489 of October 2, 2000 in the Rule 56 Information Disclosure Statement filed therein on August 31, 2001, with the exception of the recently discovered patents hereinafter printed in bold type face:

| <u>Patent No.</u> | <u>Date</u>    | <u>Inventor</u> | <u>Class</u>    | <u>Sub Class</u> |
|-------------------|----------------|-----------------|-----------------|------------------|
| 2,638,609         | 5/19/53        | Penner          | 11/1            |                  |
| <b>3,101,750</b>  | <b>8/27/63</b> | <b>Pfaffle</b>  | <b>140/92.3</b> |                  |
| 3,520,334         | 7/14/70        | Mueller         | 140/92.93       |                  |
| 3,378,045         | 4/16/68        | Thurman         | 140/92.94       |                  |
| 3,826,290         | 7/30/74        | Pfaffle         | 140/92.7        |                  |

|              |          |             |           |
|--------------|----------|-------------|-----------|
| 3,839,759    | 10/8/74  | Staats      | 11/1A     |
| 3,866,254    | 2/8/75   | Gronda      | 11/1AC    |
| 3,922,109    | 11/25/75 | Hagen       | 416/213   |
| 3,924,664    | 12/9/75  | Pfaffle     | 140/92.7  |
| 3,967,336    | 7/6/76   | Cutter      | 11/1AC    |
| 4,008,501    | 2/22/77  | Cutter      | 11/1AC    |
| 4,074,958    | 2/21/78  | Molenaar    | 425/71    |
| 4,129,156    | 12/12/78 | Pfaffle     | 140/92.4  |
| 4,137,289    | 1/30/79  | Staats      | 264/138   |
| 4,143,686    | 3/13/79  | Sickinger   | 140/92.93 |
| 4,157,821    | 6/12/79  | Fabrig      | 270/58.07 |
| 4,159,821    | 6/12/79  | Fabrig      | 270/53    |
| 4,161,196    | 7/17/79  | Fabrig      | 140/92.4  |
| 4,165,766    | 8/28/79  | Fabrig      | 140/92.7  |
| 4,178,972    | 12/18/79 | Pfaffle     | 140/105   |
| 4,185,668    | 1/29/80  | Harbert     | 140/92.4  |
| 4,208,750    | 6/24/80  | Pfaffle     | 11/1A     |
| 4,232,858    | 11/11/80 | Fabrig      | 270/53    |
| 4,237,568    | 12/9/80  | Kunzmann    | 12/9/80   |
| RE 30,491    | 1/27/81  | Gomez       | 11/1A     |
| 4,249,278    | 2/10/81  | Pfaffle     | 11/1A     |
| 4,267,865    | 5/19/81  | Negro       | 140/92.94 |
| 4,327,780    | 5/4/82   | Lehmann     | 140/92.7  |
| 4,351,371    | 9/28/82  | Mann et al  | 140/92.3  |
| 4,367,815    | 1/11/83  | Fabrig      | 198/374   |
| 4,369,015    | 1/18/83  | Fabrig      | 414/31    |
| 4,373,558    | 2/15/83  | Dawson      | 140/71R   |
| 4,378,822    | 4/5/83   | Morris      | 140/92.3  |
| 4,425,773    | 1/17/84  | Fabrig      | 72/142    |
| 4,426,871    | 1/24/84  | Fabrig      | 72/141    |
| 4,501,304    | 2/26/85  | Lehmann     | 140/103   |
| 4,525,117    | 6/25/85  | Jones       | 412/39    |
| 4,545,603    | 10/8/85  | Henes       | 281/21A   |
| 4,721,136    | 1/26/88  | Negro       | 140/71R   |
| 4,729,708    | 3/8/88   | Fabrig      | 412/1     |
| 4,811,973    | 3/14/89  | Kumar-Misir | 281/21A   |
| 4,833,980    | 5/30/89  | Bringhurst  | 101/93.04 |
| 4,886,259    | 12/12/89 | Ishikawa    | 270/53    |
| 5,036,690    | 8/6/91   | McGowen     | 72/49     |
| 5,407,232    | 4/18/95  | Des Jarlais | 281/16    |
| 5,417,508    | 5/23/95  | Friedman    | 402/19    |
| Des. 365,580 | 12/26/95 | Stiles      | D15/128   |
| 5,497,811    | 3/12/96  | Pigna       | 140/71R   |
| 6,190,156 B1 | 2/20/01* | Primeau     | 425/391   |

\* filed December 22, 1997

Foreign Publications

| Document No. | Date | Country | Class | Translation Subclass | Yes/No |
|--------------|------|---------|-------|----------------------|--------|
|--------------|------|---------|-------|----------------------|--------|

III Other References(Including Author, Title, Date, Pertinent Pages, Etc.)

PVC Spiral Supply Co., "Marlon 700", approximately 7 pages.

In Pfaffle '278, discussed in the specification of the present invention, plastic spiral coils are produced under heat, but the hot plastic spiral coils are not cooled at ambient air temperature while progressively moving over a conveyor from a plastic spiral forming machine which is in line with a plastic spiral insertion book binding machine.

Rather, in Pfaffle '278, the coils are cooled by a Vortec cooler with a blast of cold air under rapid cooling, which produces undesirable air pockets and brittleness in the plastic spiral coils.

In contrast, the slow cooling of the hot plastic coils of the present invention takes place along a conveyor at ambient air temperature, producing solid, non-brittle and strong plastic spiral coils for bookbinding.

Of the above noted newly submitted patents printed in bold type face, Negro '865 and Mann '371 discuss plastic coils, but not cooling discrete pre-cut plastic coils at ambient air temperature along a conveyor, as in the present invention. Negro '136 describes forming binding combs.

Pfaffle '1,750, Thurman '045 and Mueller '334 describe forming wire coils in general.

Pfaffle '8,750, on the other hand, describes forming flat plastic coils for calendars. The flat sheets are heated and softened by heater 34 and cooled immediately just before they are formed into flattened coils entering a plurality of aligned holes in the calendar sheets.

Molenaar '958 describes forming SLINKY toy coils from hot plastic materials and cooling them with cooling elements as the coils are moving.

Mann '371, however discusses the above noted German patent number 1 944 223 describing therein that plastic coils are "produced continuously, then stored in the intermediate period and wound into the block".

For example, upon information and belief, an examination of sequential Figures 2, 3 and 4 of German patent no. 19 44 223 reveals a plastic spiral coil 13' ("spirale 13'") which is apparently cut by a cutting edge 19 ("schneidkante") of tool 17 ("ablangwerkzeug"). In Figure 7 therein, the spiral coils 13' are stored in a storage magazine container ("magazin") and then wound into the block.

Therefore, upon information and belief, the cut spiral coils of German patent no. 19 44 223 are stored in the magazine container, and later introduced into the sheets of papers, not immediately cooled at ambient air temperatures along a conveyor.

Of the other newly cited patents, Primeau '156 describes forming a continuous plastic coil to be wound around a spool, not discrete pre-cut spiral coils. The continuous coil is not cooled at ambient air temperatures, but is rather inserted in a closed sleeve 48, to which is applied cool air from a cooling device 50.

Applicant also submits a 5 page website publication of PVC Spiral Supply Company, which, according to Applicant's assignee's Declaration of Saul Spiel dated May 14, 2003, should not be considered a prior art reference.

Applicant submits this document for consideration before the mailing of a first office action on the merits.

In view of the present submission, it is now believed that the present application is in all respects complete and in condition for examination on the merits.

If the Examiner has any questions or comments relating to the present application, he or she is respectfully invited to contact Applicant's attorney at the phone number set forth below.

Please acknowledge receipt by returning the enclosed postcard.

Respectfully submitted,

  
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Attorney for Applicant  
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Dated: May 20, 2003

pat56 continuation

CERTIFICATE OF MAILING

I hereby certify that the attached correspondence is being deposited with the United States Patent Office by Express Mail # EV 089662674US to: MAIL STOP PATENT APPLICATIONS COMMISSIONER OF PATENTS, PO BOX 1450 ALEXANDRIA, VA 22313-1450 on the date indicated below.

Date: May 20, 2003,

Lisa H. Russo  
Lisa H. Russo

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 SPIRAL BINDING MACHINE  
**EXAMINER:** M. Henderson  
**GROUP ART UNIT:** 3722

| <u>U.S. PATENT DOCUMENTS</u> |                        |             |                 |                                    |
|------------------------------|------------------------|-------------|-----------------|------------------------------------|
| <u>Examiner Initial</u>      | <u>Document Number</u> | <u>Date</u> | <u>Name</u>     | <u>Class Sub Filing Class Date</u> |
| <u>I US Patents</u>          |                        |             |                 |                                    |
|                              | <u>Patent No.</u>      | <u>Date</u> | <u>Inventor</u> | <u>Class Sub Class</u>             |
|                              | 2,638,609              | 5/19/53     | Penner          | 11/1                               |
|                              | 3,101,750              | 8/27/63     | Pfaffle         | 140/92.3                           |
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|                              | 3,378,045              | 4/16/68     | Thurman         | 140/92.94                          |
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|                              | 3,866,254              | 2/8/75      | Gronda          | 11/1AC                             |
|                              | 3,922,109              | 11/25/75    | Hagen           | 416/213                            |
|                              | 3,924,664              | 12/9/75     | Pfaffle         | 140/92.7                           |
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|                              | 4,008,501              | 2/22/77     | Cutter          | 11/1AC                             |
|                              | 4,074,958              | 2/21/78     | Molenaar        | 425/71                             |
|                              | 4,129,156              | 12/12/78    | Pfaffle         | 140/92.4                           |
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|                              | 4,159,821              | 6/12/79     | Fabrig          | 270/53                             |
|                              | 4,161,196              | 7/17/79     | Fabrig          | 140/92.4                           |

|                     |                 |                   |                  |
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| 4,165,766           | 8/28/79         | Fabrig            | 140/92.7         |
| 4,178,972           | 12/18/79        | Pfaffle           | 140/105          |
| 4,185,668           | 1/29/80         | Harbert           | 140/92.4         |
| <b>4,208,750</b>    | <b>6/24/80</b>  | <b>Pfaffle</b>    | <b>11/1A</b>     |
| 4,232,858           | 11/11/80        | Fabrig            | 270/53           |
| 4,237,568           | 12/9/80         | Kunzmann          | 12/9/80          |
| RE 30,491           | 1/27/81         | Gomez             | 11/1A            |
| 4,249,278           | 2/10/81         | Pfaffle           | 11/1A            |
| <b>4,267,865</b>    | <b>5/19/81</b>  | <b>Negro</b>      | <b>140/92.94</b> |
| 4,327,780           | 5/4/82          | Lehmann           | 140/92.7         |
| <b>4,351,371</b>    | <b>9/28/82</b>  | <b>Mann et al</b> | <b>140/92.3</b>  |
| 4,367,815           | 1/11/83         | Fabrig            | 198/374          |
| 4,369,015           | 1/18/83         | Fabrig            | 414/31           |
| 4,373,558           | 2/15/83         | Dawson            | 140/71R          |
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| 4,545,603           | 10/8/85         | Henes             | 281/21A          |
| <b>4,721,136</b>    | <b>1/26/88</b>  | <b>Negro</b>      | <b>140/71R</b>   |
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| 4,811,973           | 3/14/89         | Kumar-Misir       | 281/21A          |
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\* filed December 22, 1997

| <u>Foreign Publications</u> |             |                |              |                             |               |
|-----------------------------|-------------|----------------|--------------|-----------------------------|---------------|
| <u>Document No.</u>         | <u>Date</u> | <u>Country</u> | <u>Class</u> | <u>Translation Subclass</u> | <u>Yes/No</u> |
| 1 944 223                   | 8/30/69     | Germany        | B42c,        | 1/06                        | No            |

III Other References(Including Author, Title, Date, Pertinent Pages, Etc.)

PVC Spiral Supply Co., "Marlon 700", approximately 7 pages.

PTO1449

|                           |          |            |         |
|---------------------------|----------|------------|---------|
| 5,806,676                 | 9 / /98  | Wasgien    | 206/341 |
| 6,000,897                 | 12/14/99 | DesJarlais | 412/40  |
| 6,190,156 B1              | 2/20/01* | Primeau    | 425/391 |
| * filed December 22, 1997 |          |            |         |

Foreign Publications

| Document No. | Date    | Country | Class      | Translation |
|--------------|---------|---------|------------|-------------|
|              |         |         | Subclass   | Yes/No      |
| 1 944 223    | 8/30/69 | Germany | B42c, 1/06 | No          |

III Other References(Including Author, Title, Date, Pertinent Pages, Etc.)

PVC Spiral Supply Co., "Marlon 700", approximately 7 pages.

Renz Company "Renz Automatic Plastic Spiral Winding and Length Cutting Machine", Operator's Manual, July 1990, 17 pages

DesJarlais, Canadian Patent Application 2,320,527, filed September 22, 2000

Georgia Gulf Corporation, letter of R. Elliot Asay, Madison, MS 39110, June 10, 2003, 2 pages.

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 GROUP ART UNIT: 3722

Documents listed in bold typeface are newly discovered references not cited in prior parent patent application 10/215,656, filed August 10, 2002. Copies of documents listed in bold print are supplied herein. Applicant requests that the Examiner obtain a copy of the earlier filed references from application serial number 10/215,656.

| <u>U.S. PATENT DOCUMENTS</u> |                        |                |                 |                                    |
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|                              | <b>3,944,049</b>       | <b>03/ /76</b> | <b>Graybill</b> | <b>198/34</b>                      |
|                              | 3,967,336              | 7/6/76         | Cutter          | 11/1AC                             |
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| <b>4,382,586</b> | <b>5/ /83</b> | <b>Reese</b> | <b>266/259</b> |
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| 4,426,871        | 1/24/84       | Fabrig       | 72/141         |
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